

**REMARKS****1. Claim status**

Claims 1-4, 8-9, 15-18, 21-22, 26-30, 35-37 and 42-47 are pending. All claims were rejected as anticipated by a single reference or obvious in view of one or more references. Claims 1-4, 8-9, 15-18 and 21-22 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,766,660 issued to *Lee* (hereinafter "*Lee*"). Claims 26-28 were rejected under 35 USC § 103(a) as being unpatentable over *Lee*. Claims 1-4 and 15-18 were rejected under 35 USC § 102(e) as being anticipated by U.S. Patent 6,825,046 issued to *Forsyth* (hereinafter "*Forsyth*"). Claims 26-27, 29-30, 45, and 47 were rejected under 35 USC § 103(a) as being unpatentable over *Forsyth*. Claims 8-9, 15, 21-22, 28, 36-37, 42-43 and 46 were rejected under 35 USC §103(a) as being unpatentable over *Forsyth* in view of U.S. Patent Publication 2002-01788797 for *Pawliszyn* (hereinafter "*Pawliszyn*").

**2. Claim amendments**

Independent claims 1, 8, 15, 16, 21, 26, 29, 35, 36, and 45 have been amended to clarify aspects of the claims as originally filed for better differentiation with the prior art cited by the Examiner as the basis for rejection. All amendments are supported by the claims and the specification as originally filed.

For example, revision of claims 1, 8, 15, 16, 21, and 26 to provide the cap or cover member has no orifices therethrough is supported at least by the specification at page 6, lines 21-26, and further depicted in Fig. 3, which specifically teaches a cap which, while permitting a needle to pass through, prevents fluid from escaping the cap or cover.

For a second example, revision of claims 1, 8, 15, 16, 21 and 26 to provide the coating is applied to the top cover interior surface facing the chamber is supported at least by the specification from page 7, line 34 to page 8, line 1 and in Fig. 1.

As a further example, other revisions of claims 1, 8, 15, 16, 26 are simply revisions of the existing language of those claims accomplished by reducing redundancies in the claims.

3. The rejection of independent claims 1, 8, 15, 16 and 21, and dependent claims 2-4, 9, 17-18 and 22, under 35 U.S.C. § 102(b) as being anticipated by Lee should be withdrawn.

The rejection of independent claims 1, 8, 15, 16 and 21, and dependent claims 2-4, 9, 17-18 and 22, under 35 U.S.C. § 102(b) as being anticipated by *Lee* should be withdrawn as *Lee* does not contain the limitation of a cap having no orifices therethrough and to whose interior surface a sorptive coating is applied, contained in each of the independent claims. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Examiner held that "[t]he interior surface of the top of the cap is coated (covered with thin layer of) porous filter material containing an adsorbent immobilized by the porous filter layer..." and that "[i]t is the examiner's position that cover 32 over vent 22 is penetrable by a syringe, since the vent may be up to 3mm in diameter...." Office Action mailed June 23, 2009, p. 3, lines 2-3 and 6-7. However, as further explained in detail below, as independent claims 1, 8, 15, 16 and 21, as amended, make clear that the sorptive coating is applied directly on the top cover interior surface and that the cap has no orifices therethrough, those two elements are not found in *Lee*.

As *Lee* does not disclose a sorptive coating applied directly on the top cover interior surface of the cap, there is no anticipation of claims 1, 8, 15, 16 and 21 and the rejected

dependent claims. *Lee* discloses a cap 20 to which a porous filter 24 is attached (*Lee*, Col. 3, lines 32-34) and where the filter 24 includes an adsorbent 30 and a receptacle part 26 connected to a capillary tube 28 so filtered air may pass through the cap 20. (*Lee*, Col. 3, lines 34-36). *Lee* does not disclose a sorptive coating applied directly to the top interior cover interior surface of the cap.

As *Lee* does not disclose a cap having no orifices therethrough, there is no anticipation of claims 1, 8, 15, 16 and 21 and the rejected dependent claims. Specifically, *Lee* discloses a cap 20 having a vent 22 therethrough sized to permit filtered gas to escape the kimchi jar. (*Lee*, Col. 3, lines 32-40). *Lee* does not disclose a cap having no orifices therethrough but instead teaches a cap with a hole through it, permeable to gas and to fluid.

**4. The rejection of claims 26-28 under 35 USC § 103(a) as being unpatentable over Lee should be withdrawn.**

The rejection of independent claim 26, and dependent claims 27-28, under 35 U.S.C. § 102(b) as being unpatentable over *Lee* should be withdrawn as *Lee* does not contain the limitations of a cap having no orifices therethrough and to whose interior surface a sorptive coating is applied, as detailed above in Section 3. In order to establish a prima facie case of obviousness, the prior art references must disclose all of the claim limitations. MPEP 2143. The proposed combination does not include all elements of the invention claimed in claim 26, specifically that the sorptive coating is applied directly on the top cover interior surface and that the cap has no orifices therethrough. In rejecting claim 26, the Examiner proceeded from the 102 rejection at issue in point 3 above and argued that *Lee* teaches all elements of claim 26 except the friction fit inside the neck of the vessel. Office Action mailed June 23, 2009, p. 3, lines 1-12. In doing so, the Examiner expanded that rejection on the position that "[t]he interior surface of the

top of the cap is coated (covered with thin layer of) porous filter material containing an adsorbent immobilized by the porous filter layer..." and that "[i]t is the examiner's position that cover 32 over vent 22 is penetrable by a syringe, since the vent may be up to 3mm in diameter...." However, independent claim 26, as amended, makes clear that the sorptive coating is applied directly on the top cover interior surface and that the cap has no orifices therethrough, two elements not found in *Lee*, as established above in Section 3, and therefore are not found in the proposed modification of *Lee*.

**5. The rejection of claims 1-4 and 15-18 under 35 USC § 102(e) as being anticipated by *Forsyth* should be withdrawn.**

The rejection of independent claims 1, 15 and 16, and dependent claims 2-4 and 18, under 35 U.S.C. § 102(e) as being anticipated by *Forsyth* should be withdrawn as *Forsyth* does not disclose the limitation of the sorptive coating being applied to the cap's top cover interior surface. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Examiner based the rejection on the position that "Forsyth teaches a vessel 6 with neck and opening capped by cap 3A, 4A having porous sorbent coated surface 1A." Office Action mailed June 23, 2009, p. 3, lines 18-19. However, independent claims 1, 15, and 16, as amended, make clear that the sorptive coating is applied directly on the top cover interior surface, an element not found in *Forsyth*.

*Forsyth* does not disclose a sorptive coating applied to the top cover interior surface of the cap as claimed in independent claims 1, 15 and 16. Rather, *Forsyth* discloses a coating 2 on a cylindrical support 1A mounted through a silicone septum and surrounded by a tubing 3:

Referring to FIGS. 1 and 2, in detail, an assembly 1 for carrying out solid phase micro extraction is shown, comprising a cylindrical support 1A, which may be in

the form of a fibre, and which may have a length of coating 2 of which various types of organic compounds could be used. The diameter of the fibre may vary, but would generally be between 0.5 to 2 mm and it may be solid or hollow.

As seen in FIG. 3, a cylindrical support 1A which has a length of coating, is mounted through a Teflon® faced silicone septum 4. Stainless steel tubing 3, which acts as a shield, of slightly longer length than the coating is mounted over the support 1A. If the fibre is pulled up through the silicone septum, until the fibre coating is inside the stainless steel sleeve 3, the extracted analytes are shielded from volatilizing into the atmosphere.

*Forsyth*, Col. 3, lines 12-27.

**6. The rejection of claims 26-27, 29-30, 45, and 47 under 35 USC § 103(a) as being unpatentable over *Forsyth* should be withdrawn.**

The rejection of independent claims 26, 29, and 45, and dependent claims 27, 30, and 47, under 35 U.S.C. § 103(a) as being unpatentable by *Forsyth* should be withdrawn as *Forsyth* does not disclose the limitation of coating the inner, or interior surface of the cap. The Examiner rejected independent claims 26, 29 and 45, taking the position that *Forsyth* disclosed all elements of the claims except the use of a cap having a sidewall within the neck of the vessel, or recapping the first vessel and capping the second. However, as established above in Section 5, *Forsyth* explicitly teaches a coating 2 on a cylindrical support 1A mounted through a silicone septum and surrounded by a tubing 3 and teaches away from a sorptive coating applied to the top cover interior surface of the cap. Thus, *Forsyth* does not teach all limitations of claims 26 (said lower periphery being smaller than said cover periphery and having a coating applied thereto), 29 (coating an inner surface of a first cap with a sorptive coating) or 45 (coating an interior surface of said first cap with a second coating).

**7. The rejection of claims 8-9, 15, 21-22, 28, 36-37, 42-43 and 46 under 35 USC §103(a) as being unpatentable over Forsyth in view of Pawliszyn should be withdrawn.**

The rejection of independent claims 8, 15 and 21 and 36, and dependent claims 9, 22, 28, 37, 42-43 and 46, under 35 U.S.C. § 103(a) as being unpatentable by *Forsyth* in view of *Pawliszyn* should be withdrawn as *Forsyth* does not disclose the limitation of coating the inner, or interior surface of the cap. The Examiner proposed to modify *Forsyth* to include the use of a particulate coating rather than a sorptive coating. As identified above in Section 5, this modification of *Forsyth* does not render the claims obvious as *Forsyth* teaches away from a coating applied to the top cover interior surface of the cap.

**8. Claims 35 and 44**

Applicant notes that claims 35 and 44 are pending, a fact noted by the Examiner, and were rejected, but no basis for the rejection was clearly identified. Applicant assumes the basis of rejection was the same as was identified above for similar claims and posits that the same basis for allowance identified above is applicable to these two claims. To the extent the Examiner disagrees and maintains a rejection of these two claims, Applicant respectfully requests the Examiner provide a reasoned basis for the rejection.

**9. Conclusion**

In light of the foregoing, the pending claims are patentable over the cited art as the art and proposed combinations each lack an element of the pending claims. Applicant requests the issuance of a notice of allowability.